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PREMIUMS

OFFERED IN THE YEAR 1816,

BY THE SOCIETY

INSTITUTED FOR THE ENCOURAGEMENT

OF

ARTS, MANUFACTURES, AND COMMERCE,

IN THE ADELPHI, LONDON.

THE Meetings of the Society are held at their House in the Adelphi, London; and the consideration of the Claims, offered in the present List, will take place during the Session of the Society commencing on Wednesday the 6th of November, 1816.

ADVERTISEMENT TO THE PUBLIC.

THE chief object of the SOCIETY is to promote the Arts, Manufactures and Commerce of this Kingdom, by giving honorary or pecuniary Rewards, as may be best adapted to the case, for all such useful Inventions, Discoveries, and Improvements, (though not mentioned in this advertisement) as tend to that purpose; and, in pursuance of this plan, the Society have already expended above EIGHTY THOUSAND POUNDS, advanced by voluntary subscriptions of Members, and legacies bequeathed.

The Register of Premiums and Bounties they have given, which may be seen at the SOCIETY'S house in the Adelphi, will show the very great advantages which the Public have derived from this Institution.

The meetings of the SOCIETY are held every Wednesday, at seven o'clock in the evening, from the first Wednesday in November to the second Wednesday in June. The several Committees meet on other evenings in the week during the session, as particularly mentioned in their printed book of Rules and Orders.

In order still farther to promote the laudable Views of the SOCIETY, it may be necessary to explain the mode by which Members are elected.

Each Member has the privilege, at the meeting of the SOCIETY, or by letter to the Secretary, to propose any person who is desirous to become a Member; such proposal to contain the name, full addition, and place of abode, of the proposed Member, and to be signed by three members of the SOCIETY.

Peers of the Realm or Lords of Parliament are, on their being proposed, immediately ballotted for; the names of other persons proposed to become Members are read by the Secretary, at the next meeting of the SOCIETY, and then inserted in lists which are hung up in the SOCIETY'S room; they are ballotted for at the second following ordinary meeting. In both cases, if two-thirds of the Members then voting ballot in their favour, they are deemed Perpetual Members upon payment of not less than Twenty Guineas in one sum, or Subscribing Members upon payment of any sum not less than Two Guineas annually.

All Members are entitled to vote and assist in all the business of the SOCIETY and the several Committees. The Members have also the privilege of recommending two persons as auditors at the meetings of the SOCIETY; and, by addressing a note to the housekeeper, of introducing their friends to examine the various Models, Machines, and Productions, in different branches of Arts, Manufactures, and Commerce, for which rewards have been bestowed; also to inspect the magnificent series of Moral and Historical Paintings, executed by the late J. BARRY, Esq. which, with some valuable Busts, Statues, &c. decorate the Great Room.

Members have the use of the Society's Library, which is valuable and annually increasing, from donations of scientific and useful books and engravings. The SOCIETY are highly sensible of the great importance of such acquisitions, and are happy to record them, with the names of the donors, in the Volume annually published of the SOCIETY'S Transactions, to which the Members are intitled.

Ladies are eligible, as Members of the SOCIETY, to all the Privileges thereof, and are alone entitled to vote by proxy at elections, through the medium of any gentleman who is a member, on his producing a written authority for the same.

The time appointed for admission to the Paintings or Models, is from ten to two o'clock, Sundays and Wednesdays excepted.

ORDERED,

SOCIETY'S HOUSE, ADELPHI, JUNE 1st, 1815.

That the several candidates and claimants, to whom the Society shall adjudge Premiums or Bounties, do attend as required by the Secretary, on the last Tuesday in May, 1817, at eleven o'clock in the forenoon precisely, to receive the same; that Day being appointed by the Society for the Distribution of their Rewards; and before that time no Premium or Bounty will be delivered, except to those who are about to leave the Kingdom.

In cases where the Society may think fit to admit excuses for not attending in person, deputies may be substituted to receive the Rewards, provided such Deputies are either Members of the Society, or superior Officers thereof.

A LIST of the Officers of the SOCIETY, and Chairmen of the several Committees.

PRESIDENT.

His Royal Highness the DUKE of SUSSEX, K. G. &c. &c.

VICE-PRESIDENTS.

John, Duke of Bedford, F.A.S.
Hugh, Duke of Northumberland, F.R. and A.S.
G. G. L. Marquis of Stafford, K.G.
Jacob, Earl of Radnor, F.R. and A.S.
Robert, Earl of Liverpool, F.R.S.
Charles, Earl of Romney, F.R.S.
Hugh Earl Percy.
Hon. Robert Clifford, F.R. and A.S.
Sir Robert Peel, Bart, M.P.
Sir Watkin Lewes, Knt.
Sir Nathaniel Conant, Knt.
Thomas Pitt, Esq. F.A.S.
Richard Clark, Esq. Chamberlain, F.A.S.
Richard Powell, M.D.
John Christian Curwen, Esq. M.P.
Richard Wilson, Esq. F.A.S.

CHAIRMEN OF COMMITTEES.

Accounts.

William Lumley, Esq.
Abraham Osorio, Esq.

Correspondence and Papers.

William Tooke, Esq.
Daniel Moore, Esq. F. R. & A. S.

Polite Arts.

J. Barber Beaumont, Esq. F.A.S.
R. H. Solly, Esq. F. R. and A.S.

Agriculture.

T. H. Andrew, Esq.
Charles Waistell, Esq.

Manufactures.

J. Pearsall, Esq.
I. Smith, Esq.

Mechanics.

Thomas Gill, Esq.
Bryan Donkin, Esq.

Chemistry.

Henry Coxwell, Esq.
G. D. Midgley, Esq.

Colonies and Trade.

William Lewis, Esq. F.L.S.
William Vaughan, Esq.

Miscellaneous Matters.

William Kirkby, Esq.
Daniel Beaumont, Esq.

SECRETARY, Charles Taylor, M.D.

ASSISTANT SECRETARY, Mr. Thomas Woodfall.

HOUSEKEEPER, Miss A.B. Cockings.

COLLECTOR, Mr. Robert Elwin.

PREMIUMS offered in 1816, by the SOCIETY instituted at London, A. D. 1754, for the Encouragement of Arts, Manufactures, and Commerce.

PREMIUMS IN AGRICULTURE.

THE Candidates for planting all kinds of trees are to mention the nature of the soil, to produce certificates that the respective plantations are properly fenced and secured, and particularly to state the condition of the plants at the time of sending such certificates. Any information which the candidates for the following premiums may choose to communicate, relative to the methods made use of in forming the plantations, or promoting the growth of the several trees, or any other observations that may have occurred on the subject, will be thankfully received.

It is the intention of the Society that such lands only as are not calculated for the purposes of husbandry, should be employed for the purposes specified in these advertisements relative to plantations.

ARTICLE I.—ACORNS.

FOR having set between the first of October, 1814, and the first of April, 1815, the greatest quantity of land, not less than ten acres, with acorns, with or without seeds, cuttings, or plants of other trees, at the option of the candidate; and for effectually fencing and preserving the same, in order to raise timber; the gold medal.

2. For the second greatest quantity of land, not less than five acres, set agreeably to the above conditions; the silver medal.

Certificates of setting agreeably to the above conditions, and that there are not fewer than three hundred young oaks on each acre, to be delivered to the Society on or before the last Tuesday in December, 1816.

3. RAISING OAKS.

To the person who shall have raised, since the year 1812, the greatest number of oaks, not fewer than five thousand, either from young plants or acorns, in order to secure a succession of oak timber in this kingdom; the gold medal.

4. For the next greatest number, not fewer than three thousand; the silver medal.

Certificates that there were on the land at least the number of young oak trees required, in a thriving condition, two years after the planting, with an account of the methods pursued in making and managing the plantation, to be produced to the Society on or before the first Tuesday in January, 1817.

5. ASCERTAINING THE BEST METHOD OF RAISING OAKS.

To the person who shall ascertain in the best manner by actual experiments, the comparative merits of the different modes of raising oaks for timber, either from acorns set on land properly dug or tilled, from acorns set by the spade or dibble, without digging or tillage, either

on a smooth surface, or among bushes, fern, or other cover; or from young plants previously raised in nurseries, and transplanted; regard being had to the expense, growth, and other respective advantages of the several methods; the gold medal.

The accounts, and proper certificates that not less than one acre has been cultivated in each mode, to be produced to the Society on or before the last Tuesday in November, 1816.

6. CHESNUTS.

For having sown or set between the first of October, 1814, and the first of April, 1815, the greatest quantity of land, not less than six acres, with Spanish chesnuts, with or without seeds, cuttings, or plants of other trees, adapted to such soil, at the option of the candidate; and for effectually fencing and preserving the same, in order to raise timber; the gold medal.

7. For the second greatest quantity, not less than four acres; the silver medal.

Certificates of sowing or setting, agreeably to the above conditions, and that there are not fewer than three hundred chesnut plants in a thriving state, on each acre, to be delivered to the Society on or before the first Tuesday in January, 1817.

8. ELM.

For having planted the greatest number of the English elm, not less than eight thousand, between the twenty-fourth of June, 1814, and the twenty-fourth of June, 1815, and for having effectually fenced and preserved the same, in order to raise timber; the gold medal.

9. For the second greatest number, not less than five thousand; the silver medal.

Certificates of having planted agreeably to the above conditions, that the plants were in a healthy and thriving state two years at least after making the plantation, and specifying the distance of the plants, to be delivered to the Society on or before the first Tuesday in April, 1817.

10. LARCH.

For having planted out, between the twenty-fourth of June, 1813, and the twenty-fourth of June, 1814, the greatest number of larch trees, not fewer than five thousand, and for having effectually fenced and preserved the same, in order to raise timber; the gold medal.

11. For the next greatest number, not fewer than three thousand; the silver medal.

Certificates of the number of plants, that they were in a healthy and thriving state two years at least after they were planted

out, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December, 1816.

N. B. The larch trees may be planted either mixed with other trees, or by themselves, as may best suit the convenience of the planter.

12. ASH.

For having sown or set, in the year 1813, the greatest quantity of land, not less than six acres, with ash for timber, with or without seeds, cuttings, or plants, of such other trees as are adapted to the soil; the gold medal.

13. For the next greatest quantity, not less than four acres; the silver medal.

Certificates of the sowing or setting, agreeably to the above conditions, that there are not fewer than six hundred ash plants on each acre, in a thriving and healthy condition, two years at least after the sowing or setting, with a general account of the methods used in making the plantation; to be delivered to the Society on or before the last Tuesday in December, 1816.

14. FOREST TREES.

To the person who shall have enclosed and planted, or set, the greatest number of acres (not less than ten) of land, that is incapable of being ploughed, such as the borders of rivers, the sides of precipices, and any land that has too many rocks, or that is not calculated to re-pay the expense of tillage, owing to the surface being too hilly, mountainous, or otherwise unfit for tillage, with the best sorts of forest trees, namely, oak, Spanish chesnuts, ash, elm, beech, alder, willow, larch, spruce, and silver fir, with or without screens of Scotch fir adapted to the soil, and intended for timber trees, between the first of October, 1813, and the first of April, 1814; the gold medal.

15. For the second greatest quantity of land; not less than seven acres: the silver medal.

A particular *account* of the methods used in making and managing the plantations, the nature of the soil, the probable number of each sort of plants, together with proper *certificates* that they were in a healthy and thriving state two years at least after making the plantations, to be delivered to the Society on or before the second Tuesday in January, 1817.

N. B. With the above forest trees, the seeds, cuttings, or plants, of such other trees as are adapted to the soil, and proper for underwood, may or may not be intermixed.

16. NORWAY FIR SEEDLINGS.

To the person who shall have planted in the united kingdom, during the year

1815, the greatest number, not less than two thousand, of red wood and white wood, Norway fir seedling, at sufficient distances from each other to stand for timber trees; the gold medal.

Certificates of the number of plants, that they were in a thriving state two years at least after they were planted out, with a general account of the method used in making the plantation, to be delivered to the Society on or before the first Tuesday in December, 1816.

N. B. It is recommended to plant the seedlings of about three or four years growth, and in a moderately good soil, somewhat sheltered; the wood from the district of Christiania is esteemed the best for carpenters' and joiners' use: and for spars and upers the trees near to Long Sound are most valued.

17. WALNUT TREES.

For having planted the greatest number of walnut trees, not less than five hundred, between the 24th of June, 1814, and the 24th of June, 1815, and for having effectually fenced and preserved the same, in order to raise timber; the gold medal.

18. For the next greatest number, not fewer than three hundred; the silver medal.

Certificates of having planted agreeably to the above conditions, and that the plants were in a healthy and thriving state two years at least after making the plantations, and specifying the distance of the plants from each other, to be delivered to the Society on or before the first Tuesday in April, 1817.

19. SECURING PLANTATIONS OF TIMBER TREES AND HEDGE ROWS.

To the person who shall give to the Society the most satisfactory account, founded on experience, of the most effectual and least expensive method of securing young plantations of timber trees and hedge rows, from hares and rabbits, as well as sheep and large cattle, which at the same time shall be least subject to the depredations of wood-stealers; the silver medal.

The *accounts*, and *certificates* of the efficacy of the method, to be produced to the Society on or before the last Tuesday in December, 1816.

20. COMPARATIVE CULTURE OF WHEAT, BROAD-CAST, DRILLED, AND DIBBLED.

For the best set of experiments, made on not less than twelve acres, four of which to be sown broad-cast, four drilled, and four dibbled, the two latter in equidistant rows, in order fully to ascertain which is the most advantageous mode of cultivating wheat; the gold medal.

It is required that every operation and expense of each mode of culture be fully described; and that proper certificates of the nature and condition of the land on which the experiments were made, together with an *account* of the produce of the corn, the weight per bushel, and also of the straw, be produced to the Society on or before the first Tuesday in February, 1817.

21. BEANS.

To the person who, in the year 1816, shall discover and cultivate, either by the drill or dibbling method, on not less than five acres, a species of horse-beans or tick beans, that will ripen their seeds before the 21st of August; the silver medal.

It is required that a particular account of the bean, the cultivation, and the expense attending it, with proper *certificates* of the nature and condition of the land on which the experiments were made, together with an *account* of the produce, the weight per Winchester bushel, and a sample of not less than a peck, be produced to the Society on or before the last Tuesday in December, 1816. It is apprehended that if a bean should be brought into cultivation with the habits of hotspur, or other early peas, that it would in a great measure escape the danger arising from the collier insect, or other insects, and allow more time for the farmers to till the land for the subsequent crop of wheat. The *accounts* and *certificates* to be delivered on or before the last Tuesday in December, 1816.

22. PARSNIPS.

To the person who, in the year 1816, shall cultivate the greatest quantity of land, not less than five acres, with parsnips, for the particular purpose of feeding cattle or sheep; the gold medal.

Certificates of the quantity of land so cultivated, with a particular *account* of the nature of the soil and weight of the produce on sixteen perches, and also of the condition of the cattle or sheep fed with the parsnips, and the advantages resulting from the practice, to be produced to the Society on or before the second Tuesday in February, 1817.

23. BUCK WHEAT.

To the person who shall cultivate the greatest quantity of land with buck wheat, not less than thirty acres; the gold medal.

It is required that the time of sowing and reaping be noticed; also a particular *account* of the species, cultivation, and expense attending it, the manner of reaping it, thrashing it, and housing the grain; with proper *certificates* of the nature and condition of the land on which the ex-

periments were made, and the name of the crop, if any, which the same land bore the preceding year, together with an *account* of the produce, and a sample of the seed, not less than a quart, be produced to the Society on or before the second Tuesday in January, 1817.

24. For the next greatest quantity, not less than fifteen acres, on similar conditions; the silver medal.

Information respecting its application to the feeding of cattle, hogs, and poultry, and other of its uses, is also desired. It is known to be particularly serviceable in furnishing honey to bees.

25. BEES WAX, AND HONEY.

To the person who shall erect, previous to the first day of September, 1816, an apiary, containing the greatest number of hives or boxes stocked with bees, not less than one hundred; the silver medal, or twenty guineas.

26. For the next greatest number, not fewer than fifty stocks; ten guineas.

Proper *certificates* of the number of stocks, and that they have been in the possession of the claimant during the preceding summer, to be produced to the Society on or before the first Tuesday in March 1817.

It is expected that the claimant will give such particular information on the subject, as may tend to benefit the public, and enable other persons to keep bees to advantage; also that improved methods be made use of in their management, and particularly that the bees be not destroyed in order to obtain their honey and wax.

27. RAISING GRASS SEEDS.

To the persons who shall raise the greatest quantity of each or any of the following named grass seeds, *viz.*—Meadow fox-tail (*alopecurus pratensis*), sweet-scented vernal grass (*anthoxanthum odoratum*), Timothy grass (*phleum pratensis*), meadow fescue grass (*festuca pratensis*), smooth-stalked meadow grass (*poa pratensis*), rough-stalked meadow grass (*poa trivialis*); the silver medal.

It is required that *certificates* from persons who have viewed them in a proper state, to identify that they are one or other of the seeds above-mentioned, indicating clearly the particular species, and noticing the quantity produced of such seeds, free from weeds or mixture of other grasses, together with proper samples of the seeds, be produced to the Society on or before the first day of February, 1816.

28. PRESERVING TURNIPS.

To the person who shall discover to the Society the best and cheapest method of preserving turnips perfectly sound, and

in every respect fit for the purpose of supporting and fattening sheep and neat cattle during the months of February, March, and April; the gold medal.

It is required that a full and accurate account of the method employed, and the expense attending the process, together with certificates that the produce of four acres at the least have been preserved according to the method described, and applied to the feeding of sheep and neat cattle; that the whole were drawn out of the ground before the first day of February, in order to clear the greater part of it previous to its being prepared for corn, and to save the soil from being exhausted by the turnips; and also of the weight of an average sixteen perches of the crop; be produced to the Society on or before the last Tuesday in December, 1816.

29. For the next in quantity and merit, on not less than two acres; the silver medal.

30. PRESERVING CABBAGES.

To the person who shall discover to the Society the best and cheapest method of preserving drum-headed cabbages perfectly sound, and in every respect fit for the purpose of supporting and fattening sheep and neat cattle during the months of February, March, and April; the gold medal.

31. For the next in quantity and merit, on not less than two acres; the silver medal.

Conditions the same as for preserving turnips, Art. 28.—And the accounts to be produced on or before the last Tuesday in December, 1816.

32. PRESERVING CARROTS, PARSNIPS, OR BEETS.

To the person who shall discover to the Society the best and cheapest method of preserving carrots, parsnips, or beets, perfectly sound, and in every respect fit for the purpose of supporting horses and fattening sheep and neat cattle, during the months of February, March, and April; the gold medal.

Conditions the same as for preserving turnips, Art. 28.—And the accounts to be delivered in on or before the last Tuesday in December, 1816.

33. For the next in quantity and merit, on not less than two acres; the silver medal.

34. POTATOES.

To the person who shall, in the year 1816, cultivate the greatest quantity of land which has not been used for the cultivation of potatoes for the space of twelve years past, not less than fifty acres, with potatoes of such qualities as to be fit for the use of the table in the months of April, May, and June, after their growth the preceding year; the gold medal, or thirty guineas.

35. For the next greatest number, not

less than twenty acres; the silver medal, or fifteen guineas.

Proper certificates, along with other necessary particulars, to be delivered in to the Society on or before the first Tuesday in April, 1817.

36. These premiums are extended one year further on similar conditions.

37. PRESERVING POTATOES.

To the person who shall discover to the Society the best and cheapest method of preserving potatoes, two or more years, perfectly sound, without vegetating, and in every other respect fit for the purpose of sets and the use of the table, and consequently of supporting and fattening cattle; the gold medal, or thirty guineas.

It is required that a full and accurate account of the method employed, and the expense attending the process, with certificates that one hundred bushels at the least have been preserved according to the method described, and that one or more bushels of the same potatoes have been set, and produced a crop without any apparent diminution of their vegetative power, and also that they have been used at table, with entire satisfaction to the persons who eat of them, together with a sample of one bushel, be sent to the Society on or before the last Tuesday in December, 1816.

38. For the next greatest quantity, not less than fifty bushels; the silver medal.

39. MAKING MEADOW-HAY IN WET WEATHER.

To the person who shall discover to the Society the best and cheapest method, superior to any hitherto practised, of making meadow hay in wet weather; the gold medal.

A full account of the method employed, and of the expense attending the process, with not less than fifty-six pounds of the hay; and certificates that at least the produce of six acres of land has been made according to the method described, and that the whole is of equal quality with the sample; to be produced on or before the first Tuesday in January, 1817.

40. HARVESTING CORN IN WET WEATHER.

To the person who shall discover to the Society the best and cheapest method, superior to any hitherto practised, of harvesting corn in wet weather; the gold medal.

A full account of the method employed, and of the expense attending the process, with not less than two sheaves of the corn, and certificates that at the least the produce of ten acres has been harvested according to the method described, and that the whole is of equal quality with the samples; to be

produced on or before the first Tuesday in January, 1817.

41. GAINING LAND FROM THE SEA.

To the person who shall produce to the Society an account, verified by actual experiment, of his having gained the greatest quantity of land from the sea, not less than fifty acres, on the coast of Great Britain and Ireland; the gold medal.

Certificates of the quantity of land, and that the experiments were begun after the first of January, 1811, to be produced to the Society on or before the last Tuesday in December, 1816.

42. The same premium is extended one year further.

Certificates to be produced on or before the last Tuesday in December, 1817.

43. IMPROVING LAND LYING WASTE.

For the most satisfactory account of the best method of improving any one of the following soils, being land lying waste and uncultivated, *viz.* clay, gravel, sand, chalk, peat earth, or bog, verified by experiments of not less than fifty acres of land; the gold medal.

44. For the next greatest quantity, not less than thirty acres; the silver medal.

It is required, that the land, before such improvement, be absolutely uncultivated, and in a great measure useless, and that, in its improved state, it be enclosed, cultivated, and divided into closes.

Certificates of the number of acres, of the quality of the land so improved, with a full account of every operation and expense attending such improvement, the state it is in as to the proportion of grass to arable, and the average value thereof, to be produced on or before the first Tuesday in February, 1817.

45. MANURES.

For the most satisfactory set of experiments, to ascertain the comparative advantages of the following manures, used as top-dressings on grass and corn land, *viz.* soot, coal-ashes, wood-ashes, lime, gypsum, night-soil, or any other fit article; the gold medal.

It is required that the above experiments be made between two or more of the above-mentioned manures, and that no less than two acres of land be dressed with each manure.

An account of the nature of the soil, quantity, and expense of the manure and crops, with *certificates*, to be produced on or before the last Tuesday in February, 1817.

46. RAISING WATER FOR THE IRRIGATION OF LAND.

To the person who shall discover to the Society the cheapest and most effectual

method of raising water in quantities sufficient to be beneficially employed for the purpose of irrigating land, superior to, and cheaper than any other method now in use; the gold medal, or fifty guineas.

A model, on a scale of one inch to a foot, with *certificates* that a machine at large, on the same construction, has been used, specifying the quantity of water delivered in gallons per hour, and the height to which it was raised, to be produced to the Society on or before the first of March, 1817.

47. PARING PLOUGH.

To the person who shall invent and produce to the Society a machine or plough for the purpose of paring land preparatory to burning, superior to any hitherto known, or in use for such purpose, and to be worked by not more than one man and two horses; the silver medal, or twenty guineas.

The machine, and *certificates* that at least ten acres have been pared by it in a proper manner, to be produced to the Society on or before the first of January, 1817.

48. MACHINE FOR DIBBLING WHEAT.

To the person who shall invent a machine, superior to any hitherto known or in use, to answer the purpose of dibbling wheat, by which the holes for receiving the grain may be made at equal distances and proper depths; the silver medal and ten guineas.

The machine, with *certificates* that at least three acres have been dibbled by it, to be produced to the Society on or before the second Tuesday in January, 1817.

49. MACHINE FOR REAPING OR MOWING CORN.

For inventing a machine to answer the purpose of mowing or reaping wheat, rye, barley, oats or beans, by which it may be done more expeditiously and cheaper than by any method now practised, provided it does not shed the corn or pulse more than the methods in common practice, and that it lays the straw in such manner that it may be easily gathered up for binding; the gold medal.

The machine, with *certificates* that at least three acres have been cut by it, to be produced to the Society on or before the second Tuesday in December, 1816. Simplicity and cheapness in the construction of this and the preceding machine, will be considered as principal parts of their merit.

50. THRASHING MACHINE.

To the person who shall invent a machine by which corn of all sorts may be thrashed more expeditiously, effectually, and at a less expense, than by any method now in use; the gold medal.

The machine or a model, with proper *certificates* that such a machine has been usefully applied, that at least thirty quarters have been thrashed by it, and of the time employed in the operation, to be produced to the Society on or before the last Tuesday in February, 1817.

51. DESTROYING THE GRUB OF THE COCKCHAFER.

To the person who shall discover to the Society an effectual method, verified by repeated and satisfactory trials, of destroying the grub of the cockchafer, or of preventing or checking the destructive effects which always attend corn, peas, beans, and turnips, when attacked by those insects; the gold medal.

The *accounts*, with proper *certificates*, to be produced on or before the first Tuesday in January, 1817.

52. DESTROYING WORMS.

To the person who shall discover to the Society, an effectual method, verified by repeated and satisfactory trials, of destroying worms, or of preventing the destructive effects they occasion on corn, beans, peas, or other pulse; the silver medal.

The *accounts*, with proper *certificates*, to be produced to the Society, on or before the first Tuesday in January, 1817.

53. DESTROYING THE FLY ON HOPS.

To the person who shall discover to the Society an easy and efficacious method of destroying the fly on hops, superior to any hitherto known or practised, on not less than four acres of hop ground; the gold medal.

Accounts and *certificates* to be delivered to the Society on or before the first Tuesday in February, 1817.

54. PREVENTING THE BLIGHT, OR RAVAGES OF INSECTS, ON FRUIT TREES AND CULINARY PLANTS.

To the person who shall discover to the Society the most effectual method of preventing the blight or ravages of insects on fruit trees and culinary plants, superior to any hitherto known or practised, and verified by actual and comparative experiments; the gold medal.

The *accounts*, with proper *certificates*, to be delivered to the Society on or before the second Tuesday in December, 1816.

55. FOR SCRAPING THE BARK OF FRUIT TREES.

To the person who shall send to the Society the best accounts of experiments made by scraping the bark of fruit trees, according to the plan recommended by Sir

John Sinclair, in his Treatise on the subject; the silver medal.

Certificates that the experiments have succeeded, to be sent to the Society on or before the first Tuesday in March, 1817.

56. CURE OF THE ROT IN SHEEP.

To the person who shall discover to the Society the best and most effectual method of curing the rot in sheep, verified by repeated and satisfactory experiments; the gold medal.

It is expected that the candidates furnish accurate *accounts* of the symptoms and cause of the disease, together with the imputed cause thereof, and the actual or probable means of prevention, which, with proper *certificates*, must be delivered to the Society on or before the first Tuesday in February, 1817.

57. CURE OF THE FOOT-ROT IN SHEEP.

To the person who shall discover to the Society the best and most effectual method of curing the foot-rot in sheep; the silver medal.

It is required that the cure be ascertained by repeated and satisfactory experiments, and the method of performing it be verified by proper *certificates*, delivered to the Society on or before the first Tuesday in February, 1817.

58. PREVENTING THE ILL EFFECTS OF FLIES ON SHEEP.

To the person who shall discover to the Society the most effectual method of protecting sheep from being disturbed and injured by flies; the silver medal.

It is required that the method be ascertained by repeated experiments, and that a *certificate* of its efficacy be delivered to the Society on or before the first Tuesday in December, 1816.

59. PROTECTING SHEEP.

To the person who, in the year 1815, shall have protected the greatest number of sheep, not fewer than one hundred, by hovels, sheds, or any other means, and give the most satisfactory account, verified by experiment, of the advantages arising from the practice of protecting sheep from the inclemency of the weather, by hovels, sheds, or any other means; the gold medal.

A particular *account* of the experiments made, with the advantages arising therefrom, together with the expense, and *certificates* of its utility, to be produced to the Society on or before the first Tuesday in March, 1817.

N.B. It is required that the *certificates* shall specify the length of time the sheep were so protected, and the manner in which they were maintained during that time; to-

gether with the general method of managing them.

60. CULTURE OF HEMP.

The Society, wishing to encourage the growth of hemp for the use of the Navy in every part of the united Empire, offer to the person who shall have sown with hemp, in drills at least eighteen inches asunder, the greatest quantity of land in any part of the United Empire, not less than fifty acres statute measure, in the year 1815, and shall have at the proper season caused to be plucked the summer hemp, (or male hemp bearing no seed) and continue the winter hemp (or female hemp bearing seed) on the ground until the seed is ripe; the gold medal.

61. To the person who shall sow with hemp, in drills at least eighteen inches asunder, the next greatest quantity of land in any part of the United Empire, not less than twenty-five acres, statute measure, in the year 1816, and shall at the proper season cause the same to be plucked as above-mentioned; the silver medal.

Certificates of the number of acres, of the distance of the drills, of the plucking of the hemp, with a general account of the soil, cultivation, and produce, to be delivered to the Society, along with fourteen pounds of the hemp and two quarts of the seed, on or before the second Tuesday in January, 1817.

62. FEEDING OF CATTLE.

For the best experiments on stall-feeding of cattle (not less than five head), to be continued for the space of twelve months, in order to prove the earliest maturity and greatest propensity to fatten, of the most approved breeds of cattle in Great Britain, specifying the nature of the food given, together with the daily consumption of each beast, with its weekly increase in weight, and such other observations as may be deemed of consequence; the gold medal.

A full account of the methods employed, and of the expenses attending the same, and *certificates* of the sundry matters stated, to be produced on or before the second Tuesday in January, 1817.

PREMIUMS FOR DISCOVERIES AND IMPROVEMENTS IN CHEMISTRY, DYEING, AND MINERALOGY.

63. PRESERVING SEEDS OF VEGETABLES.

For the best method of preserving the seeds of plants in a state fit for vegetation a longer time than has hitherto been practised, such method being superior to any known to the public, and verified by sufficient trial, to be communicated to the Society on or before the last Tuesday in December, 1816; the gold medal, or thirty guineas.

64. PREVENTING THE DRY-ROT IN TIMBER.

To the person who shall discover to the Society the cause of the dry-rot in timber, and disclose a certain method of prevention superior to any hitherto known; the gold medal, or thirty guineas.

The accounts of the cause and method of prevention, confirmed by repeated experiments, to be produced to the Society on or before the last Tuesday in Dec. 1816.

65. PRESERVING SALTED PROVISIONS FROM BECOMING RANCID OR RUSTY.

To the person who shall discover to the Society the best, cheapest, and most efficacious method of preserving salted provisions from becoming rancid or rusty; the gold medal, or thirty guineas.

A full description of the method, with proper *certificates* that it has been found on repeated trials to answer the purpose intended, to be produced to the Society on or before the first Tuesday in February, 1817.

66. REFINING WHALE OR SEAL OIL.

For disclosing to the Society an effectual method of purifying whale or seal oil from the glutinous matter that incrusts the wicks of lamps, and extinguishes the light though fully supplied with oil; the gold medal, or fifty guineas.

It is required that the whole of the process be fully and fairly disclosed, in order that satisfactory experiments may be made by the Society to determine the validity of the claim; and *certificates* that not less than twenty gallons have been purified according to the process delivered in, together with two gallons of the oil in its unpurified state, and two gallons so refined, to be produced to the Society on or before the second Tuesday in February, 1817.

67. MANUFACTURING TALLOW CANDLES.

To the person who shall discover to the Society a method of hardening or otherwise preparing tallow, so that candles may be made of it which will burn as clear and

with as small a wick as wax candles, with out running, and may be afforded at a less expense than any at present made with spermaceti; the gold medal, or fifty guineas.

Certificates that 112lb. of such tallow have been made into candles, and 12lb. of the candles made thereof, to be produced to the Society on or before the second Tuesday in January, 1817.

68. CANDLES FROM RESIN, OR OTHER SUBSTANCES.

To the person who shall discover to the Society the best method of making candles of resin, or any other substance fit for common use, at a price much inferior to those made of tallow only; the gold medal, or thirty guineas.

Six pounds at least of the candles so prepared, with an *account* of the process, to be delivered to the Society on or before the last Tuesday in December, 1816.

69. INCREASING STEAM.

To the person who shall invent and discover to the Society a method, verified by actual experiments, of increasing the quantity or force of steam in steam-engines, with less fuel than has hitherto been employed, provided that in general the whole amount of the expenses in using steam engines may be considerably lessened; the gold medal, or fifty guineas.

To be communicated to the Society on or before the first Tuesday in January, 1817.

70. SUBSTITUTE FOR TAR.

To the person who shall invent and discover to the Society the best substitute for Stockholm tar, equal in all its properties to the best of that kind, and prepared from materials the produce of the United Kingdom and its Colonies; the gold medal, or one hundred guineas. A quantity of the substitute, not less than one hundred weight, with *certificates* that at least one ton has been manufactured, and that it can be afforded at a price not exceeding that of the best foreign tar, together with an *account* of the process, to be delivered to the Society on or before the first Tuesday in March, 1817.

N. B. Considerable quantities of tar are produced in Sweden and Norway from the roots of fir trees burnt for that purpose.

71. TURPENTINE FROM THE SCOTCH FIR, OR PINUS SYLVESTRIS.

For the greatest quantity of turpentine, not less than two hundred weight, prepared in Great Britain, from that species of fir called the Scotch fir, or *Pinus sylvestris*, Linn.; the gold medal.

Certificates of the turpentine being prepared from such trees of British growth, together with fifty-six pounds of the turpentine, to be delivered to the Society on

or before the second Tuesday in January, 1817.

72. For the next greatest quantity prepared, not less than one hundred weight, on similar conditions; the silver medal.

N. B. The Society being in possession of the method practised for extracting turpentine from trees whilst growing, and of samples so procured, information will be given upon that subject, on application for that purpose, at the Society's house.

73. PREPARATION OF TAN.

To the person who shall prepare, in the most concentrated form, so as to be easily portable, and at a price applicable to the purposes of manufacturers, the largest quantity, not less than one hundred weight, of the principle called *tannin*, which abounds in oak bark and many other vegetable substances; the gold medal, or thirty guineas.

Certificates of the superior quality of the quantity so prepared, and a sample of not less than 28lb. to be produced to the Society on or before the last Tuesday in January, 1817.

74. INDELIBLE INK.

To the person who shall discover to the Society a method of making a black ink proper for writing, superior to any at present known, indestructible by chemical applications, and not dearer than that which is now in common use; the silver medal, or fifteen guineas.

Certificates that not less than two gallons of such ink have been actually prepared, and found to possess the qualities above mentioned, with a full detail of the process of making it, and two quarts of the ink to be delivered to the Society on or before the second Tuesday in January, 1817.

75. PREPARATION OF A RED STAIN FOR COTTON CLOTH.

To the person who shall communicate to the Society the cheapest and most effectual method of printing or staining cotton cloths with a red colour, by an immediate application of the colouring matter to the cloth, equally beautiful and durable with the red colours now generally procured from decoctions of madder; the gold medal, or fifty guineas.

Certificates that the above process has been advantageously used on ten pieces of calico, each twenty-one yards or upwards in length; one piece of the calico so printed, one pound of the colour, and a full *account* of the preparation and application, to be produced to the Society on or before the second Tuesday in January, 1817.

76. PREPARATION OF A GREEN COLOUR FOR PRINTING COTTON CLOTH.

To the person who shall communicate to the Society the best and cheapest method of

printing with a full green colour on cotton cloth, by an immediate application of the colouring matter from a wooden block to the cloth, equally beautiful and durable as the colours now formed from the complicated process of the decoction of weld, and the solutions of indigo; the gold medal, or fifty guineas.

Certificates and conditions as for Premium 75.

77. RENDERING MUSLIN LESS COMBUSTIBLE.

To the person who shall discover to the Society a method of rendering muslin less combustible, to be effected by a cheaper and more effectual mode than any hitherto known; the silver medal.

Specimens of the muslin so prepared, with a full account of the process employed for the purpose, to be produced to the Society on or before the first Tuesday in February, 1817.

N. B. It is expected that the means employed shall neither injure the quality of the muslin, stain it, nor damage any print or dye with which it may be coloured.

78. WHITE SUBSTANCE FOR THE BASIS OF PAINT.

To the person who shall produce to the Society the best white substitute, superior to any hitherto known, for the basis of paint, equally proper for the purpose as the white-lead now employed; such substitute not to be of a noxious quality, and to be afforded at a price not materially higher than that of white-lead, the gold medal, or one hundred guineas.

A quantity of the substitute, not less than 50lb. weight, with an account of the process used in preparing it, and *certificates* that at least one hundred weight has been manufactured, to be produced to the Society on or before the first Tuesday in January, 1817.

79. PERMANENT WHITE PAINT FOR THE USE OF ARTISTS.

To the person who shall produce to the Society a white paint, superior to any hitherto known, and which is not liable to be discoloured by exposure to light or sulphurated hydrogen gas; the gold medal, or thirty guineas.

A full account of the process, and 1lb. of the colour to be produced to the Society, on or before the second Tuesday in January, 1817.

80. RED PIGMENT.

To the person who shall discover to the Society a full and satisfactory process for preparing a red pigment, fit for use in oil or water, equal in tone and brilliancy to the best carmines and lakes now known or in use, and perfectly durable; the gold medal, or fifty guineas.

One pound weight of such colour, and a full disclosure of its preparation, to be produced to the Society on or before the first Tuesday in February, 1817.

N. B. It is not required that the colour should resist the action of fire, or chemical applications, but remain unaltered by the common exposure to strong light, damps, and noxious vapours.

81. ULTRAMARINE.

To the person who shall prepare an artificial ultramarine, equal in colour, brilliancy, and durability, to the best prepared from lapis lazuli, and which may be afforded at a cheaper rate; the gold medal, or thirty guineas.

The conditions are the same as in the preceding Premium for the red pigment.

82. BLUE PIGMENT FROM IRON.

To the person who shall invent, and discover to the Society, the best blue pigment from iron, superior to Antwerp or Prussian blue in colour and durability, fit for use in oil or water, which may be afforded at a cheap rate; the gold medal, or thirty guineas.

One pound weight of the colour, and a full disclosure of its preparation, to be produced to the Society on or before the first Tuesday in February, 1817.

N. B. A blue substance much resembling ultramarine, is frequently found amongst the scoriæ of blast furnaces where iron is reduced.

83. DESTRUCTIVE EFFECTS FROM MOTHS.

To the person who shall discover to the Society a cheap, easy, and effectual method, verified by repeated and satisfactory trials, of preventing the destructive effects occasioned by moths and other insects, in furs, woollens, and other articles, superior to any hitherto known or practised; the silver medal, or fifteen guineas.

The accounts, with proper *certificates*, to be produced to the Society on or before the first Tuesday in January, 1817.

84. STATUARY MARBLE.

To the person who shall discover, within great Britain or Ireland, a quarry of white marble fit for the purposes of statuary, and equal in all respects to those kinds now imported from Italy; the gold medal, or one hundred guineas.

A block of at least three feet in length, two in height, and two in width, with an account of the situation of the quarry, and *certificates* of its possessing considerable extent, to be produced to the Society on or before the first Tuesday in February, 1817.

N. B. In order to prevent useless expense or trouble to the claimant in forwarding so large a block, the Society will

be ready to examine any smaller specimen of the marble, and express their opinion of its value to the candidate before the block required by the above premium is produced.

85. PREPARATION OF SULPHURIC ACID, FROM SULPHUR, WITHOUT THE USE OF ANY NITRIC SALT.

To the person who shall prepare the largest quantity (not less than one ton) of sulphuric acid from sulphur, without any nitric salt, of a specific gravity not inferior to the best sulphuric acid of commerce; the gold medal, or fifty guineas.

Certificates that not less than the above quantity of such an acid has been prepared, together with a sample, to be produced to the Society on or before the first Tuesday in January, 1817.

86. PREPARATION OF ANY ALKALINE OR EARTHEN NITRATE.

To the person who shall prepare, in Great Britain, the largest quantity, not less than one hundred weight, of any salt of nitric acid, with either earths or alkalies, by a method superior to, and as cheap as those hitherto practised; the gold medal, or one hundred guineas.

Certificates of the above quantity having been prepared, and a sample of not less than 28lb. to be produced to the Society on or before the last Tuesday in January, 1817.

87. FINE BAR IRON.

To the person, in Great Britain, who shall make the greatest quantity of bar-iron, not less than ten tons, with coak, from coak pigs, equal in quality to the best iron imported from Sweden or Russia, and as fit for being converted into steel; the gold medal, or fifty guineas.

Samples, not less than one hundred weight, with *certificates* that the whole quantity is of equal quality, to be produced to the Society on or before the first Tuesday in January, 1817.

88. PRESERVING IRON FROM RUST.

To the person who shall invent and discover to the Society a cheap composition, superior to any now in use, which shall effectually preserve wrought iron from rust; the gold medal, or fifty guineas.

A full description of the method of preparing the composition, with *certificates* that it has stood at least two years unimpaired, being exposed to the atmosphere during the whole time, to be produced to the Society, with ten pounds weight of the composition, on or before the first Tuesday in January, 1817.

89. REFINING BLOCK TIN.

To the person who shall discover to the Society the best method of purifying or refining block-tin, so as to render it fit for the finest purposes to which grain-tin is now applied, and not materially higher in price; the gold medal, or fifty guineas.

Certificates that not less than three tons have been so refined or purified, with a full detail of the process, and a quantity, not less than one hundred weight, of the tin so refined, to be produced to the Society on or before the first Tuesday in January, 1817.

90. GLAZING EARTHEN-WARE WITHOUT LEAD.

To the person who shall discover to the Society, the cheapest, safest, most durable, and most easily fusible composition, fit for the purpose of glazing the ordinary kinds of earthen-ware, without any preparation of lead, and superior to any hitherto in use; the gold medal, or thirty guineas.

Specimens of the ware so glazed, with proper *certificates* of its having succeeded, and a sample of the materials made use of, to be produced to the Society on or before the first Tuesday in February, 1817.

91. COBALT, ZAFFRE, AND SMALT.

For the discovery of a mine of cobalt in Great Britain or Ireland, that will produce a sufficient quantity of the mineral, of good quality, to supply a manufacture of zaffre, or smalt; the gold medal, or thirty guineas.

Certificates that at least one ton of the ore has been raised; and five pounds of zaffre, and ten pounds of smalt made therefrom, to be produced to the Society on or before the last Tuesday in March, 1817.

N. B. It appears from the minutes of the Society, in 1755, that a discovery of cobalt was made at or near Truro in Cornwall, but not a sufficient quantity of ore found to answer the desired purpose.

92. REFINING COPPER FROM THE ORE.

To the person who shall discover to the Society the best method of separating, purifying, and refining copper from the ore, so as to render it fit for those purposes to which fine copper is now applied, and by a process superior to any hitherto known or in use; the gold medal, or fifty guineas.

Certificates that not less than three tons have been so prepared or refined, and a quantity not less than one hundred weight of the copper so refined, to be produced to the Society on or before the first Tuesday in February, 1817.

93. PREVENTING THE ILL EFFECTS OF SMELTING ORES.

To the person or persons who shall invent and discover to the Society the

most effectual method or methods of preventing the ill effects arising to vegetation and animal life, from the sulphureous arsenical, or other noxious fumes disengaged in smelting the ores of copper, zinc, lead, tin, iron, &c. in the large way, and if possible, of converting those pernicious fumes into useful purposes, in a manner superior to any hitherto known or in use; the gold medal, or fifty guineas.

It is required that a full account of the process employed, with *certificates* of its being successfully carried into effect, be produced to the Society on or before the first Tuesday in March, 1817.

94. MINERALOGICAL COUNTY MAPS.

To the person who shall complete and publish the best mineralogical map of any county in the united kingdom, on a scale of not less than one inch to a mile, containing an account of the situation of the different mines therein, and describing the kinds of minerals thence produced, with sections of the strata; the gold medal, or fifty guineas.

Certificates of the accuracy of such maps, together with the maps, to be produced to the Society on or before the first Tuesday in February, 1817. The maps to remain the property of the Society.

95. MINERALOGICAL MAP OF IRELAND.

To the person who shall complete and publish an accurate mineralogical map of Ireland, on a scale of not less than five miles to an inch, containing particulars described in the foregoing premium; the gold medal, or fifty guineas.

96. MINERALOGICAL MAP OF SCOTLAND.

The same premium is offered for a mineralogical map of Scotland, on similar conditions.

97. NATURAL HISTORY.

To the author who shall publish, in the year 1816, the natural history of any county in the United Kingdom; the gold medal, or fifty guineas.

It is required that the several natural productions, animal, vegetable, and mineral, peculiar to the county, or found therein, be carefully and scientifically arranged and described, in order that the public may be enabled to judge what arts or manufactures are most likely to succeed in such county. The work to be delivered to the Society on or before the last Tuesday in January, 1817, and a copy to be the property of the Society.

PREMIUMS IN POLITE ARTS.

98. HONORARY PREMIUMS FOR PAINTINGS OR DRAWINGS BY NOBILITY.

For the best original painting or drawing of any kind, by young gentlemen under the age of twenty-one, sons or grandsons of peers or peeresses in their own right, of Great Britain or Ireland; the gold medal.

99. For the best copy, on similar conditions; the silver medal.

100—101. The same premiums will be given on the like conditions, to young ladies, daughters or grand-daughters of peers or peeresses in their own right of Great Britain or Ireland.

102. HONORARY PREMIUMS FOR PAINTINGS OR DRAWINGS BY GENTLEMEN.

For the best original painting or drawing of any kind, by young gentlemen under the age of twenty-one; the gold medal.

103. For the best copy, on similar conditions; the silver medal.

104—105. The same premiums will be given for drawings by young ladies.

N. B. As the foregoing honorary premiums are intended only for such of the nobility and gentry as may hereafter become patrons or patronesses of the arts; persons professing any branch of the polite arts, or any business dependent on the arts of design, or the sons and daughters of such persons, will not be admitted candidates in the above classes, including 98 to 105.

106. For the best original historical painting or drawing, by persons of either sex, under the age of twenty-five; the gold medal.

107. For the best copy of an historical painting or drawing, by persons of either sex, under the age of twenty-one; the silver medal.

108. For the best original landscape, either in oil or water colours, by persons of either sex, under the age of twenty-five; the gold medal.

109. For the best original landscape in oil or water colours, by persons of either sex, under the age of twenty-one; the silver medal.

110. For the best copy of a landscape, by persons of either sex, under the age of eighteen; the silver Isis medal.

111. For the best original painting or drawing of fruit or flowers, by persons of either sex, under the age of twenty-one; the silver medal.

112. For the best finished drawing of the statue of the Venus, No. 8, Room 2, or Ceres, No. 52, Room 6, in the British Museum; the size of the drawing not less than eighteen inches high, by persons of either sex, under the age of twenty-one; the silver medal.

113. For the best drawing of the head of Homer, marked No. 33, in the British Museum, not less than twelve inches in height, by persons of either sex, under the age of 21; the silver Isis medal.

114. DRAWINGS OF OUTLINES.

For the best outline, after the plaster cast of the Apollo Belvidere, by persons of either sex, under the age of 21, the figure not less than eighteen inches; the silver medal.

115. For the best perspective drawing of machines, by persons of either sex, under the age of twenty-one; the silver medal.

116. For the best original painting or drawing, not included in either of the above mentioned classes, by persons of either sex, under the age of twenty-five; the gold Isis medal.

117. For the best copy, as above, by persons under the age of twenty-one; the silver Isis medal.

118. ARCHITECTURAL DESIGNS.

For the best original design of a triumphal arch, or other design forming a principal entrance to a city, consisting of plan, elevation, and section, each to be the size of double elephant; the drawing to remain the property of the Society; the gold medal.

For the next in merit, the silver medallion, on similar conditions.

The following inscriptions to be engraved on these medallions; *The Premium given by the Society for the Encouragement of Arts, Manufactures, and Commerce, in conformity to the Will of John Stock, Esq. of Hampstead.*

119. PLASTER CAST.

For the best original model of a group, not less than three figures, by persons under twenty-five; the gold medal.

For the next in merit, the gold Isis medal.

120. For a single figure, by persons under twenty-one, the silver medal.

* * * A cast from the model in each case to remain the property of the Society, if required.

121. ETCHING OF AN HISTORICAL SUBJECT.

For the best free etching in historical composition, from a picture of eminence; the gold Isis medal.

122. ETCHING OF A LANDSCAPE.

For the best free etching in landscape composition, from a picture of eminence; the silver medal.

123. HISTORICAL ENGRAVING.

For the best finished engraving in historical composition; the gold medal.

124. LANDSCAPE ENGRAVING.

For the best finished engraving in landscape composition; the gold Isis medal.

125. ENGRAVING OF A PORTRAIT.

For the best finished engraving of a portrait, the gold Isis medal.

N. B. In the class of finished engravings the Society require an aqua-fortis impression, and a finished proof to be sent, and to remain with the Society.

126. ENGRAVING ON WOOD BLOCKS.

For the best engraving on wood blocks of an historical subject, the size of the principal figure not less than six inches in height, and the block to be at least twelve inches by nine; the gold Isis medal.

Two or more impressions, with the block, to be produced to the Society. The impressions, but not the block, to remain the property of the Society.

127. MEDAL DIE ENGRAVING.

For the best die engraving, either of a single figure or group, after the engraver's own design and model; the gold medal.

128. For the best die engraving of a design appropriate to the Society's rewards, in the classes either of Mechanics, Chymistry, or Colonies and Trade. The size of the die not to exceed two inches; the gold medal.

The dies, with two impressions or casts, and the model, in each claim for Medal die sinking, are to be produced to the Society, and the impressions or casts to remain the property of the Society, but the dies to be returned, unless the Society should purchase them.

CONDITIONS,

FOR THE POLITE ARTS:

All articles in the class of Polite Arts, whether for claims or bounties, are to be produced to the Society on or before the first

Tuesday in March, 1817, and none can be received after that day.

No person who has gained the first premium in any class shall be admitted a candidate in a class of inferior age; and no candidate shall receive more than one premium in one year.

No more than one performance in any class shall be received from the same candidate.

All performances (to which premiums or bounties are adjudged) shall remain with the Society until after the first Wednesday in June, 1816, when they will be re-delivered, unless mentioned in the Premiums to the contrary.

No performance shall be admitted, that has obtained a reward from any other society, or academy, or been offered for that purpose.

It is required, that the subjects for which premiums are offered, be delivered in without the names, or any external intimation to whom they belong; that each particular subject be marked in what manner the claimant thinks fit, such claimant sending with it a paper sealed up, having on the outside a corresponding mark, with the

number of the class in which it is meant that the claim should be made, and on the inside the claimant's name, residence, and age; the name not to be disclosed, unless the candidate be successful, or by a special vote of the Society. No production can be received with a view to obtain a bounty, which could have come into any of the foregoing classes.

To encourage real merit, and prevent attempts to impose on the Society, by producing drawings made or retouched by any other person than the candidate, the Society require a specimen of the abilities of each successful candidate, to be made under the inspection of the Committee of Polite Arts.

All candidates in the Polite Arts are required to signify, on their drawings, whether the performances are originals or copies; and if possible to send the originals from which copies are taken.

All copies of drawings, &c. are to be on a different scale from the original.

The Society reserve to themselves the power of giving in all cases such part only of any premium as the performance shall be judged to deserve; or withholding the whole, if there be no merit.

PREMIUMS FOR ENCOURAGING AND IMPROVING MANUFACTURES.

129. EMPLOYMENT OF FEMALES.

To the person who shall instruct and employ the greatest number of females, not fewer than twenty, in the making of men's clothes, particularly of woollen cloth, and not being for the use of the army or navy; the gold medal, or fifty guineas.

Certificates that the number of women above mentioned, have been constantly so employed for at least three months, to be produced to the Society, on or before the last Tuesday in March, 1817.

130. For the next greatest number of women so employed, not fewer than ten; the silver medal, or fifteen guineas, on similar conditions.

131. CLOTH FROM HOP-STALKS, NETTLES, &c.

To the person who shall produce to the Society the greatest quantity, not less than thirty yards of cloth, at least 27 inches wide, made in Great Britain or Ireland, of hop-stalks or bines, nettles, or other raw vegetable substances, the produce of Great

Britain or Ireland, superior to any hitherto manufactured from such substances, and which can be generally afforded as cheap as cloth of equal quality and appearance now made from hemp, flax, or cotton, and much finer in quality than any hitherto manufactured in England from hop-stalks, &c.; the gold medal, or thirty guineas.

One pound of the thread of which the cloth is made, and thirty yards of the cloth, together with proper *certificates* that the whole is manufactured from hop-stalks, or bines, &c. to be produced to the Society on or before the last Tuesday in December, 1816.

N. B. The Society is already in the possession of cloth made in England from hop-stalks or bines, and nettles, which may be inspected by application to the House-keeper.

132. SHEEP'S WOOL.

To the person who shall prove to the Society, that he has sold the largest quantity of Merino wool, or such wool as will an-

swer the same purposes, being the produce of his own flock, in the United Kingdom, for the purpose of being manufactured in superfine cloth, the quantity of wool not less than five hundred weight, in the year 1816; the gold medal.

Certificates, along with samples of the wool, and of the cloth manufactured from it, to be produced to the Society on or before the last Tuesday in March, 1817.

133. For the next greatest quantity, not less than two hundred and fifty pounds; the silver medal, on similar conditions.

134. HOGS BRISTLES.

To the person who shall prepare the greatest quantity of bristles, from swine bred in the United Kingdom, equal in quality to those imported from Russia or Prussia, and at as cheap a rate; the silver medal, or fifteen guineas.

Certificates, that not less than one hundred weight have been so prepared, and a sample of not less than fourteen pounds of such bristles, to be produced to the Society on or before the last Tuesday in February, 1817.

135. WICKS FOR CANDLES OR LAMPS.

To the person who shall discover to the Society, a method of manufacturing hop-stalks or bines, nettles, or any other cheap material, the growth of Great Britain, so as to render them equally fit for the purpose of supplying the place of cotton, for wicks of candles or lamps; the silver medal, or twenty guineas.

Samples, not less than five pounds weight, of the wick so prepared, to be produced to the Society on or before the last Tuesday in December, 1816, with *certificates* that the whole quantity is equal in quality to the sample.

136. EXPERIMENTS TO ASCERTAIN THE PROPER THICKNESS OF WICKS FOR CANDLES.

To the person who shall make known to the Society the most satisfactory result of a series of experiments actually made by him to determine the best thickness of cotton wicks for candles, so as to obviate the defects of those commonly used; the silver medal, or ten guineas.

Certificates that not less than one hundred weight have been so made, and six pounds of the candles, to be produced to the Society, on or before the last Tuesday in February, 1817.

N.B. The intention in offering this premium, is to ascertain the proper thickness or bulk of the wick in proportion to that of the tallow, and to remove the unpleasant consequences and waste arising from the sparkling, or guttering of the candles in common use.

137. PAPER FROM RAW VEGETABLE SUBSTANCES.

To the person who shall, between the first of January, 1816, and the first of January, 1817, make the greatest quantity, and of the best quality, (not less than ten reams) of good and useful paper, from raw vegetable substances, the produce of Great Britain or Ireland, of which one hundred weight has not been used in manufacturing paper previous to January, 1815, superior to any hitherto manufactured from such substances, and which can be generally afforded, as cheap as paper of equal quality and appearance now made from rags; the silver medal, or twenty guineas.

N.B. The object of the Society being to add to the number and quantity of raw materials used in this manufacture, it is their wish to include every useful sort of paper, and to introduce such natural products as can be easily and cheaply procured in great quantities. The Society are in possession of two volumes containing a great variety of specimens of paper made from raw vegetable substances, viz. nettles, potato-haulm, poplar, hop-bines, &c. which volumes may be inspected by any person on application to the Housekeeper.

Certificates of the making such paper, and one ream of the paper, to be produced on or before the second Tuesday in January, 1817.

138. TRANSPARENT PAPER.

To the person who shall discover to the Society a method of making paper from the pulp, that shall be perfectly transparent, and of a substance and body equal to foolscap, that shall take and bear common writing-ink with the same facility and correctness as writing-paper generally in use; the silver medal, or twenty guineas.

Certificates of the making such paper, an account of the process, and one ream of the paper, to be produced on or before the second Tuesday in January, 1817.

139. CHINTZ PATTERNS FOR CALICO-PRINTERS.

For the best original pattern in a new taste, of light and dark-ground chintz for garment work, or furniture, fit for the purpose of calico-printers, by persons of either sex; the silver medal. The pattern for which the premium is adjudged, to remain the property of the Society.

140. COPPER-PLATE PATTERNS FOR CALICO-PRINTERS.

For the best pattern, in a new style, fit for the purpose of calico-printers for garment-work or furniture; the silver medal. The pattern for which the premium is ad-

judged, to remain the property of the Society.

N.B. The patterns to be produced on or before the last Tuesday in February, 1817.

141. GLOVES EQUAL TO FRENCH KID.

To the person who shall make known to the Society, a process equal to that of the French, or a superior one, for preparing, dying, and finishing the skins, verified by actual experiments, and the communication accompanied with at least a dozen pair of gloves made from skins so prepared in an equal or superior manner; the gold medal, or forty guineas.

Certificates from competent persons, fully approving of the result of such experiments, together with the gloves and communication, to be produced to the Society on or before the last Tuesday in March, 1817.

142. IMPROVED CAT-GUT EQUAL TO ROMAN OR ITALIAN.

To the person who shall discover to the Society the best method of manufacturing, in the United Kingdom of Great Britain and Ireland, the intestines of sheep, lambs, goats, or of any other animals, into the article called cat-gut, equally strong, clear, smooth, even, and free from knots, as the best Italian strings, and at a price not exceeding what they are usually sold for in England; the gold medal, or thirty guineas.

Certificates that not less than fifty pounds weight have been so prepared by the claimant, with a full detail of the process, and samples of the articles of various thicknesses, to be produced to the Society on or before the first Tuesday in February, 1817.

143. For the next greatest quantity, not less than twenty-five pounds; the silver medal, or twenty guineas, on similar conditions.

PREMIUMS IN MECHANICS.

144. GUNPOWDER MILLS.

To the person who, in the year 1816, shall invent and bring to perfection the most effectual method of so conducting the works of gunpowder mills in the business of making gunpowder, as to prevent explosion; the gold medal, or one hundred guineas.

Certificates and accounts of the method having been put in practice in one or more gunpowder mills in this kingdom, and that it promises, in the opinion of the best judges concerned in such works, to answer the purpose intended, to be produced to the Society on or before the first Tuesday in Feb. 1817.

N.B. As an encouragement to persons to turn their thoughts to improvements of this nature, if any should be made on the present method of conducting the business of gunpowder making, which fall short of the total prevention of explosion, and they are sent to the Society for the sake of humanity, the papers so sent in will receive due consideration; and such bounty or reward will be bestowed as they may appear to merit.

145. TRANSIT INSTRUMENTS.

To the person who shall invent and produce to the Society a cheap and portable transit instrument which may easily be converted into a zenith sector, capable of being accurately and expeditiously adjusted for the purpose of finding the latitudes

and longitudes of places, and superior to any portable transit instrument now in use; the gold medal, or forty guineas.

To be produced on or before the last Tuesday in January, 1817.

146. TAKING WHALES BY THE GUN-HARPOON.

To the person who, in the year 1816, shall strike the greatest number of whales, not fewer than three, with the gun-harpoon; ten guineas.

Certificates of the striking such whales, and that they were actually taken in the year 1816, signed by the master, or by the mate when the claim is made by the master, to be produced to the Society on or before the last Tuesday in December, 1816.

147. *This Premium is extended one year further, on similar conditions.*

148. FAMILY MILL.

To the person who shall invent and produce to the Society the best constructed mill for grinding corn for the use of private families, or parish poor; the construction to be such as to render the working of the mill easy and expeditious, and superior to any hitherto in use; the gold medal or thirty guineas.

The mill, and *certificates* of its having been used to good effect, to be produced to the Society on or before the first Tuesday

in February, 1817. Cheapness and simplicity will be considered as essential parts of its merit; and the mill, or a model, to remain with the Society.

149. A PORTABLE MILL FOR GRINDING CORN.

To the person who shall invent and produce to the Society a portable corn mill, superior to any now in use; the gold Isis medal, or thirty guineas.

The mill, and *certificates* of its efficacy from actual use, to be produced to the Society on or before the last Tuesday in February, 1817.

150. A PORTABLE OVEN.

To the person who shall invent and produce to the Society a portable oven, superior to any hitherto in use; the silver medal, or twenty guineas.

The oven, with *certificates* that it has been found to answer in use, to be produced to the Society on or before the last Tuesday in February, 1817.

151. MACHINE FOR RAISING COALS, ORE, &c. &c.

To the person who shall invent a machine for raising coals, ore, &c. from mines, superior to any hitherto known or in use; and which shall produce the effect at a less expense than those already known or in use; the gold medal, or fifty guineas.

A model of the machine, made on a scale of not less than one inch to a foot, with a *certificate* that a machine at large on the same construction has been advantageously used, to be produced to the Society on or before the second Tuesday in Feb. 1817.

152. IMPROVED WALKING-WHEEL, OR CRANE.

To the person who shall invent an improved walking-wheel or crane, on which the weight or power of any person or persons shall be applied with the greatest safety and effect, and so contrived that the power can be varied according to the greater or less weight to be raised or lowered; the gold medal, or thirty guineas.

The model on a scale of not less than one inch to a foot, with a proper *certificate* that the machine at large has been employed to good effect, to be produced to the Society on or before the second Tuesday in February, 1817.

153. MACHINE FOR RAISING WATER.

To the person who shall invent a machine on a better, cheaper, and more simple construction than any hitherto known or in use for raising water out of wells, &c. from a depth of not less than fifty feet; the gold medal, or thirty guineas.

Certificates of the performance of the machine, and a model of it, on a scale of not less than one inch to a foot, to be produced to the Society on or before the first Tuesday in February, 1817.

154. WATER PIPES.

To the person who shall invent and discover to the Society a substitute for the elm pipes now in common use for the conveyance of water, which shall be cheaper, equally effectual, and more durable than any heretofore employed; the gold medal, or fifty guineas.

It is required that one of the pipes so employed, an accurate *account* of the method used, and every expense attending it, together with satisfactory accounts of its being effectual, be delivered to the Society on or before the second Tuesday in January, 1817.

155. LAYING WOODEN PIPES.

To the person who shall invent and discover to the Society a superior method of laying or connecting the wooden pipes now in use for conveying water, so as to lessen the injury they receive thereby; the silver medal, or twenty guineas.

It is required that a model, an accurate *account* of the method used, and every expense attending it, together with satisfactory *certificates* of its being effectual, be delivered to the Society on or before the second Tuesday in January, 1817.

156. EXTINGUISHING FIRES.

To the person who shall produce to the Society the best and most effectual method of procuring an immediate supply of water in case of fire, or for the means best calculated to prevent or extinguish accidental fires in buildings, superior to any now in use; the gold medal, or thirty guineas.

Certificates of the method having been practised with success, with a full description thereof, to be delivered to the Society on or before the second Tuesday in January, 1817.

157. BORING AND BLASTING ROCKS.

To the person who shall discover to the Society a more simple, safe, cheap, and expeditious method than any hitherto known or in use, of boring or blasting rocks in mines, shafts, wells, &c.; the gold medal, or thirty guineas.

Certificates of the methods having been practised with success, with a full description thereof, to be delivered to the Society on or before the first Tuesday in January, 1817.

158. HEATING ROOMS FOR THE PURPOSE OF MANUFACTURERS.

To the person who shall invent and discover to the Society a method of heating rooms, superior to any hitherto known or in use, and at a moderate expense, for the purpose of painters, japanners, and other manufacturers, so as to avoid the necessity of iron or copper tunnels going through the rooms to convey the smoke, whereby the danger from such tunnels may be prevented; the gold medal, or forty guineas.

A model or complete drawing and description of the method, with *certificates* that it has been successfully practised, to be delivered to the Society on or before the last Tuesday in March, 1817.

159. IMPROVED VENTILATION.

To the person who shall invent and produce to the Society a mode of permanently ventilating the apartments in hospitals, workhouses, and other crowded places, superior to any now known or used; the gold medal, or fifty guineas.

A model of the apparatus, and a full *account* of the means by which the effect has been produced, with proper *certificates*, to be delivered to the Society on or before the last Tuesday in February, 1817.

160. PREVENTING ACCIDENTS FROM HORSES FALLING WITH TWO-WHEELED CARRIAGES.

To the person who shall invent and produce to the Society a method, superior to any hitherto known or in use, to prevent accidents from the falling of horses with two-wheeled carriages, especially on steep declivities; the silver medal, or fifteen guineas.

A model of the apparatus, and a full *account* of the means by which the effect has been produced, with proper *certificates* that the same has been used with success, to be delivered to the Society on or before the second Tuesday in January, 1817.

161. IMPROVING TURNPIKE AND OTHER ROADS.

To the person who shall discover to the Society the most effectual and cheapest method, verified by actual experiments, of combining the materials ordinarily employed in making or repairing roads, so as to form them of the hardest consistency by their cementing properties, or by an artificial mixture of earth, stones, &c. altered by heat, or any other mode, so as to form an even, hard, and durable carriage-road; the gold medal, or thirty guineas.

It is required that an accurate *account* of the method used, and every expense attending it, together with satisfactory *certificates* of its being effectual, be delivered to the Society on or before the first Tuesday in March, 1817.

162. RAISING THE BODIES OF PERSONS WHO HAVE SUNK UNDER WATER.

To the person who shall invent and produce to the Society a cheap and portable drag, or other machine, superior to those now in use, for the purpose of taking up, in the best and most expeditious manner, and with the least injury, the bodies of persons who have sunk under water; the gold medal, or thirty guineas.

The drag or machine, to answer the purpose intended, to be produced to the Society on or before the first Tuesday in March, 1817.

163. FOR PREVENTING PREJUDICIAL EFFECTS TO THE PERSONS EMPLOYED IN POINTING NEEDLES.

To the person who shall invent and produce to the Society a mode of obviating the prejudicial effects that attend the operation of pointing needles, by grinding them dry, during which the particles of grindstone-dust, and steel, being thrown into the air, and received with it into the lungs, occasion asthma, consumption, and other painful disorders; the gold medal, or thirty guineas.

A model of the apparatus, and a full *account* of the means by which the effect has been produced, together with proper *certificates* of its practicability and adoption, to be delivered to the Society on or before the second Tuesday in March, 1817.

164. FOR PREVENTING ACCIDENTS FROM STAGE COACHES.

To the person who shall invent and discover to the Society a method or methods for preventing accidents arising from stage coaches; the gold Isis medal, or thirty guineas.

Ample *certificates* of its efficacy, and a description of the method, with models of the machinery used, to be produced to the Society on or before the last Tuesday in February, 1817.

N. B. The Society wish to impress strongly on the public the necessity of turning their attention to the above premium, from the number of accidents that daily occur; and suggest whether the prevention would not, in some degree,

arise by an alteration in the manner of placing the luggage.

165. MAKING HOZE FOR THE USE OF FIRE ENGINES, BREW HOUSES, &c.

To the person who shall invent a method of making hoze for fire engines, brewhouses, &c. similar to those used on the Continent, made of flax or hemp, or other flexible material cheaper than leather; the gold Isis medal, or thirty guineas.

A full account of the process used in manufacturing it, with *certificates* of its efficacy in practice, to be produced to the Society on or before the last Tuesday in February, 1817.

166. A SUBSTITUTE FOR LEAD PIPES.

To the person who shall discover, or invent and produce to the Society, a substitute for the lead pipes used for conveying malt and other liquors from the cellars to the bars of public houses; the gold medal, or fifty guineas.

Conditions. The substance of which the pipe is made must be free from any poisonous or noxious quality, equally durable as lead, and at a moderate expense; and a specimen thereof, not less than ten yards in length, with a complete description of the process employed in forming it, to be produced to the Society on or before the last Tuesday in February, 1817.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE COMMERCE OF THE UNITED EMPIRE.

167. TAKING PORPOISES.

To the people in any boat or vessel, who, in the year 1815, shall take the greatest number of porpoises on the coast of Great Britain or Ireland, by gun-harpoon, or any other method, not fewer than thirty, for the purpose of extracting oil from them; the gold medal, or thirty guineas.

Certificates of the number, signed by the persons to whom they have been sold or delivered for the purpose of extracting the oil, to be produced to the Society on or before the last Tuesday in January, 1817.

168. OIL FROM PORPOISES.

To the person who shall manufacture the greatest quantity of oil from porpoises taken on the coast of Great Britain or Ireland, in the year 1816, not less than twenty tons; the gold medal, or thirty guineas.

Certificates of the oil having been made from porpoises actually caught on the coast of Great Britain or Ireland, and two gallons of the oil as a sample, to be produced to the Society on or before the last Tuesday in February, 1817.

169. CURING HERRINGS.

To the person or persons who shall, before January, 1817, cure the greatest

quantity of white herrings, not less than thirty barrels, equal in all respects to the best Dutch-herrings, the same being caught in the British or Irish seas, and cured in a British or Irish vessel or port; the gold medal, or fifty guineas.

170. For the next greatest quantity, not less than fifteen barrels; the silver medal, or twenty guineas.

A sixteen-gallon barrel of the herrings to be produced to the Society on or before the first Tuesday in February, 1817, with *certificates*, that the conditions of the premium have been fulfilled, and that the whole were cured in the same manner as the specimen, together with a full description of the process employed.

171. CURING MACKAREL.

To the person or persons who shall, before January, 1817, cure the greatest quantity of mackarel not less in number than ten thousand, in the best manner and to the satisfaction of the Society, the same being caught in the British or Irish seas, and cured in a British or Irish vessel or port; the gold Isis medal, or twenty-five guineas.

172. For the next greatest quantity, not less than five thousand; the silver medal, or fifteen guineas.

A sixteen-gallon barrel of the mackarel to be produced to the Society on or before

the first Tuesday in January, 1817, with *certificates* that the conditions of the premiums have been fulfilled, and that the whole were cured in the same manner as the specimens, together with a full description of the process employed.

The same premiums to be extended one year further, on similar conditions.

N. B. Specimens of cured mackarel, which promise to afford a most valuable article of trade and food, even superior to herrings, have been sent to the Society, and induced them to turn the attention of the public thereto, by offering the above premiums.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE BRITISH COLONIES.

173. NUTMEGS.

For the greatest quantity of merchantable nutmegs, not less than ten pounds weight, being the growth of his Majesty's dominions in the West Indies, or any of the British settlements on the coast of Africa, or the several islands adjacent thereto, and equal to those imported from the islands of the East Indies; the gold medal, or fifty guineas.

Satisfactory *certificates*, from the governor or commander in chief, of the place of growth, with an *account* of the number of trees, their age, nearly the quantity of fruit on each tree, and the manner of culture, to be produced on or before the first Tuesday in January, 1817.

174. KALI FOR BARILLA.

To the person who shall have cultivated, in the Bahama Islands, or any other part of his Majesty's dominions in the West Indies, or any of the British settlements on the coast of Africa, or the several islands adjacent thereto, in the year 1815, the greatest quantity of land, not less than two acres, with Spanish kali fit for the purpose of making barilla; the gold medal, or thirty guineas.

175. For the next greatest quantity, not less than one acre; the silver medal, or fifteen guineas.

Certificates, signed by the governor or commander in chief for the time being, of the quantity of land so cultivated, and of the state of the plants at the time of signing such *certificates*, to be delivered to the Society, with samples of the kali, on or before the second Tuesday in January, 1817.

176. DESTROYING THE INSECT COMMONLY CALLED THE BORER.

To the person who shall deliver to the Society an effectual method of destroying the insect commonly called the borer, which has of late years been so destruc-

tive to the sugar canes in the West India islands, the British settlements on the coast of Africa, and the several islands adjacent thereto; the gold medal, or fifty guineas.

The discovery to be ascertained by satisfactory *certificates*, under the hand and seal of the governor or commander in chief for the time being, and of some other respectable persons, inhabitants of the islands, or other place, in which the remedy has been successfully applied; such *certificates* to be delivered to the Society on or before the first Tuesday in January, 1817.

177. CULTIVATION OF HEMP IN UPPER CANADA.

To the person who shall sow with hemp the greatest quantity of land in the province of Upper Canada, not less than six arpents (each four-fifths of a statute acre), in the year 1815, and shall at the proper season cause to be plucked the summer hemp (or male hemp bearing no seed), and continue the winter hemp (or female hemp bearing seed), on the ground until the seed is ripe; the gold medal, or one hundred dollars.

178. To the person who shall sow with hemp the next greatest quantity of land in the same province of Upper Canada, not less than five arpents, in the year 1815, in the manner above mentioned; the silver medal, or eighty dollars.

179. For the next greatest quantity of land, in the same province, and in a similar manner, not less than four arpents; sixty dollars.

180. For the next greatest quantity of land, in the same province, and in a similar manner, not less than three arpents; forty dollars.

181. For the next greatest quantity of land, in the same province, and in a similar manner, not less than one arpent twenty dollars.

Certificates of the number of arpents, the method of culture, of the plucking of the hemp, with a general account whether sown broad-cast or in drills, the expense, soil, cultivation and produce, to be transmitted to the Society, certified under the hand and seal of the governor or lieutenant-governor, together with 28lb. of the hemp, and two quarts of the seed, on or before the last Tuesday in April, 1817.

182 to 186. IN LOWER CANADA.

Premiums exactly similar in all respects to those held out for the province of Upper Canada, are also offered to the province of Lower Canada.

187 to 191. IN NOVA SCOTIA AND NEW BRUNSWICK.

Similar premiums in all respects are also offered to the provinces of Nova Scotia and New Brunswick.

192. IMPORTATION OF HEMP FROM CANADA, NOVA SCOTIA, AND NEW BRUNSWICK.

To the master of that vessel which shall bring to this country the greatest quantity of marketable hemp, not less than one hundred tons, in the year 1816, the produce of Upper Canada, or of one of the above mentioned provinces; the gold medal.

193. To the master of that vessel which shall bring the next quantity, not less than fifty tons; the silver medal.

Certificates satisfactory to the Society, to be produced by the master of the vessel on or before the first Tuesday in February 1817, to testify that such hemp was grown and prepared in Canada, Nova Scotia, or New Brunswick.

194. SUBSTITUTE FOR HEMP.

To the person who, in the year 1816, shall discover and produce to the Society a substitute for hemp, equally cheap, durable, and applicable to all the purposes

for which hemp is now used; the gold medal, or fifty guineas.

A quantity of the substitute, not less than one hundred weight, together with the proper *certificates* from the governor or commander in chief, if raised in any of the British colonies, or from the Secretary of the Board of Trade, if raised in the East Indies, to prove that the same has been used with success, to be produced to the Society on or before the last Tuesday in February, 1817.

N. B. The premiums for Nos. 172, to 189, are all extended one year further, on similar conditions. *Certificates* to be produced at the same time for the year ensuing.

196. SILK.

For the greatest quantity of silk proper for manufactures, not less than one hundred pounds weight, produced by any person in Malta, or islands near or adjacent thereto, in the possession of Great Britain, in the year 1816, from silk-worms bred there; the gold medal, or fifty guineas.

Specimens of the silk, not less than one pound, with an account of the method in which the silk-worms were managed; the kind and size of the mulberry-trees from whence they were furnished with food, and particulars respecting the culture of the mulberry-trees for that purpose, to be produced to the Society on or before the first Tuesday in March, 1817.

197. For the next greatest quantity not less than fifty pounds, on similar conditions; the silver medal, or twenty guineas.

Satisfactory *certificates* from the governor or commander in chief of the district where the said silk was produced, and of the several particulars above mentioned, to be delivered to the Society along with the samples required.

N. B. The same premiums, on similar conditions, will be given for silk produced in the years 1817 and 1818, *certificates* to be sent at the same time of the years ensuing.

PREMIUMS OFFERED FOR THE ADVANTAGE OF THE BRITISH SETTLEMENTS IN THE EAST INDIES.

198. BHAUGULPORE COTTON.

To the person who shall import into the port of London, in the year 1816, the greatest quantity, not less than one ton, of the Bhagulpore cotton, from which cloths are made in imitation of nankeen, without dyeing; the gold medal.

A quantity of the cotton, not less than five pounds weight, in the pod, and five pounds carded, to be produced to the Society, with proper *certificates*, signed by the Secretary of the Board of Trade of Bengal or Bombay, on or before the last Tuesday in February, 1817.

199. ANNATTO.

To the person who, in the year 1816, shall import into the port of London, from any part of the British settlements in the East Indies, the greatest quantity of annatto, not less than five hundred weight; the gold medal.

A quantity of the annatto, not less than ten pounds weight, to be produced to the Society, with proper *certificates*, signed by the Secretary of the Board of Trade of the respective settlement, that the annatto is the produce of such settlement, on or before the last Tuesday in Feb. 1817.

200. TRUE COCHINEAL.

To the person who, in the year 1814, shall import into the port of London, from any

part of the British settlements in the East Indies, the greatest quantity of true cochineal, not less than three hundred weight; the gold medal.

A quantity of the cochineal, not less than three pounds weight, with proper *certificates*, signed by the Secretary of the Board of Trade of the respective settlement, that the cochineal is the produce of such settlement, to be produced to the Society on or before the first Tuesday in February, 1816.

N.B. The Premiums from No. 192 to 194 inclusive, are all extended two years further, on similar conditions. Certificates to be produced at the same time of the years ensuing.

GENERAL CONDITIONS.

AS the great object of the Society in rewarding individuals is to draw forth and give currency to those inventions and improvements, which are likely to benefit the public at large, candidates are requested to observe, that if the means, by which the respective objects are effected, do require an expense or trouble too great for *general purposes*, the Society will not consider itself bound to give the offered reward: but, though it thus reserves the power of giving in all cases such part only of any premium as the performance shall be adjudged to deserve, or of withholding the whole if there be no merit, yet the candidates may be assured the Society will always judge liberally of their several claims.

All candidates are to take notice, that no claim for a premium will be attended to, unless the conditions are fully complied with.

The models of all machines, which obtain premiums or bounties, shall be the property of the Society.

The premiums of this Society are designed for the United Kingdom, unless expressly mentioned to the contrary.

The claims will be determined as soon as possible after the delivery of the specimens.

It is expected that all articles for claims or bounties be sent to the Society, carriage paid.

No person shall receive any premium, bounty, or encouragement, from the Society, for any matter for which he has obtained or purposes to obtain, a patent, or for which he has obtained any premium or reward from any other Society.

A candidate for a premium, or a person applying for a bounty, being detected in any disingenuous method to impose on the Society, shall forfeit such premium or bounty, and be deemed incapable of obtaining any for the future.

No member of this Society shall be a candidate for, or entitled to receive, any premium, bounty, or reward whatsoever, except the honorary medal of the Society. The candidates are, in all cases, expected to furnish a particular account of the subject of their claims; and where certificates are required to be produced in claim of premiums, they should be expressed, as nearly as possible, in the words of the respective advertisement, and be signed by disinterested persons who have a positive knowledge of the facts stated.

Where premiums or bounties are obtained in consequence of specimens produced, the Society mean to retain such part of those specimens as they may judge necessary, making a reasonable allowance for the same.

No candidate, not a member, shall be present at any meeting of the Society or Committees, or admitted at the Society's rooms, after they have delivered in their claims, until such claims are adjudged, unless summoned by the Committee.

The Society, anxious to promote the Arts of their country, have adopted the resolution of forming a Collection of Prints, to be open for public inspection; and, having arranged those already in their possession, invite engravers to send etched or finished proofs of their plates; and hope that amateurs, collectors, and publishers of works of art, will also contribute to the undertaking.

Prints of machines, or maps, will also come within this arrangement.

This Society further invite the communications of scientific and practical men, upon all subjects connected with the views of this Society, although their experiments may have been conducted upon a smaller scale than the terms required by the premiums; as such communications may afford ground for more extensive application, and thus materially contribute to the advantage of the public.

The Library of the Society, which has already become very valuable, may yet receive considerable additions and improvements from the presents of members, or other persons who may be inclined to place useful books or valuable manuscripts in a repository at once permanent and conducive to the national benefit.

All communications are to be made by letter, addressed to CHARLES TAYLOR, M.D. the Secretary, at the Society of Arts, &c. Adelphi, London.

And where articles are sent by Sea for the Society, the Bills of Lading are to be addressed to the care of WILLIAM VAUGHAN, Esq. Mincing-lane, London, who has undertaken to receive them for the Society.

The Winchester bushel is the measure referred to for grain; and, as the acres of different districts vary in extent, it is necessary to observe, that the Society mean Statute Acres of five and a half yards to the rod or pole, and they request that all communications to them may be made agreeably thereto.

The Society desire that the Papers on different subjects sent to them may be full, clear, and explicit, fit for publication; and that descriptive Drawings may be sent, with the Models and Machines laid before the Society.

* * * To persons inclined to leave a sum of money to this Society by will, the following form is offered for that purpose.

Item. I give and bequeath to A. B. and C. D. the sum of _____ upon condition and to the intent that they, or one of them, do pay the same to the Collector, for the time being, of a Society in London, who now call themselves the Society for the Encouragement of Arts, Manufactures and Commerce; which said sum of _____

I will and desire may be laid out of my personal estate, and applied towards the carrying on the laudable designs of the Society.

N. B. The Society considering that it would be beneficial to the Commerce of the United Kingdom to bring the British Marbles into general use, and that the most effectual method of accomplishing their object would be, for the present, to make them more generally known in the Capital, have come to the following resolution:

Resolved, That specimens of British Marbles be exposed in the Society's Rooms, in the Adelphi, for the inspection of the public, under the following regulations:

1st, That all the specimens be exact to a given size, viz. eight inches high, six inches broad, one thick, and polished on one face.

2d, That a book be kept, containing the number of each specimen, and describing the situation of the quarry, the name of the parish where situated, the distance of the quarry from a beaten road, and the distance of that road from water-carriage, with the name of the donor and proprietor. Any remarks on the qualities of the marbles, or on the lime produced from them, will be gratefully received and preserved by the Society, as materials for future inquiries.

As the exertions of the Society can be generally beneficial, only inasmuch as their views are seconded by the public, the Society request, that all proprietors of marble quarries will favour them with a specimen of the marble, worked to the exact size above mentioned, with the description of the quarry as above; that the same may be entered in the book to be preserved for the use of the public. By such arrangements, it is expected that the interest of the proprietors of the quarries will be promoted, and the use of British marble much extended. A variety are already exhibited in the Society's Rooms.

The Society take this opportunity of returning their thanks to the several Societies and individuals who have favoured them with Presents for their Repository and Library.

PREMIUMS AND REWARDS

BESTOWED BY THE

Society of Arts, Manufactures, and Commerce,

ADELPHI,

DURING THEIR SESSION,

WHICH COMMENCED ON THE FIRST WEDNESDAY IN NOVEMBER, 1815,
AND CLOSED ON THE ELEVENTH OF JUNE, 1816.

On Friday, May 31, 1816,

His Royal Highness the DUKE of SUSSEX, President,
distributed the Rewards then adjudged.

IN AGRICULTURE.

No. 1. To her Grace the Duchess of Rutland, Belvoir Castle, for ascertaining the best method of raising oaks, Art. 5, the gold medal.

2. To John Christian Curwen, V.P. M.P. Workington hall, Cumberland, for his method of bringing cattle to early maturity, so as to furnish good beef in much less time than heretofore known, the gold medal.

3. To Wm. Congreve, Esq. Aldermaston House, Berks, for planting 447 acres with acorns, Art. 1, the gold medal.

4. To Michael Meek, Esq. of Sober, near Northallerton, for planting 134 acres with 588,763 forest trees, Art. 14, the gold medal.

5. To Bache Thornhill, Esq. of Stanton, near Bakewell, Derbyshire, for planting 118 acres with 315,000 forest trees, Art. 15, the silver medal.

6. To J. G. Hall, Esq. of Mixbury, near Buckingham, for protecting 1,160 Merino sheep, Art. 58, the gold medal.

IN CHEMISTRY.

1. To Mr. George Field, Heath Cottage, Hounslow, for his apparatus for preparing coloured lakes, the gold Isis medal.

2. To Mr. James Ryan, Netherton Colliery, near Dudley, for his method of ventilating coal mines, the gold medal, and one hundred guineas.

3. To Dr. Clanny, Bishop-wearmouth, near Newcastle, for his safety lamps, for mines, the silver medal.

4. To Mr. C. Pye, 27, Euston Place, Euston Square, for preparing charcoal to answer the purpose of black chalk for drawing, the silver Isis medal.

IN POLITE ARTS.

1. To Miss Emma Eleonora Kendrick, Upper Mary-le-bone Street, Fitzroy Square, for an original miniature of Dido on the funeral pile, the gold Isis medal.
2. To Miss Caroline Hunning Evatt, East Hill, Wandsworth, Surry, for a copy of the head of our Saviour, an oil painting, the silver medal.
3. To Miss Henrietta Sutherland, Sloane Square, for an original drawing of the keeper's cottage, in Hyde Park, the silver Isis medal.
4. To Miss Louisa Anne Phillippis, Wandsworth Road, for an original view of the interior of a castle at Putney, the silver palette.
5. To Mr. W. C. Ross, Macclesfield-Street, Soho, for an original portrait of his Grace the late Duke of Norfolk, Class 112, the gold Isis medal.
6. To Mr. William Harris, jun. Norton Street, Portland Place, for an original drawing of part of the interior of Waltham Abbey, the silver Isis medal.
7. To Lieutenant Robert Smith, Queen's Buildings, Brompton, for an original view of the Marina of Palermo, the silver medal.
8. To Mr. Wm. Ensom, Swinton Street, Gray's-Inn Lane Road, for a pen and ink drawing of one of Lebrun's battles, the silver medal.
9. To Mr. John Carver, Great Russell Street, Bloomsbury, for a copy of a print from Sir Joshua Reynolds; the effect produced by a pen-knife from wood charred on the surface; the silver Isis medal.
10. To Master Frederick Yeates Hurlstone, Great Queen Street, Lincoln's Inn Fields, for an oil painting of our Saviour and the three Marys, the silver medal.
11. To Miss Emma Gatley, Margaret Street, Cavendish Square, for a drawing of flowers, class 103, a copy, the silver medal.
12. To Miss B. Cotton, Chichely, Newport Pagnell, Bucks, for an original drawing of fruit and flowers, the silver medal.
13. To Miss Dutton, Gracechurch Street, for an original oil painting of Kenilworth Castle, the silver palette.
14. To Mr. Henry Douglas Craig, Charlotte Street, Fitzroy Square, for an original drawing of a lady and a hare, the silver Isis medal.
15. To Mr. Edwin Landseer, No. 33, Foley Street, for an original painting of the stable guardian, the silver medal.
16. To Master George Patten, Ludgate Hill, for an original miniature of a gentleman, the silver palette.
17. To Master Hugh Ross, Macclesfield Street, for a miniature of his Grace the late Duke of Norfolk, the silver palette.
18. To Mr. Thomas Smith, Upper Norton Street, for a drawing of a Dead Christ, a copy, the silver Isis medal.
19. To Mr. John Hayter, Woodstock Street, Bond Street, for a copy of the Transfiguration, the silver Isis medal.
20. To Miss Leonora Say, Norton Street, Mary-le-bone, for a drawing of Andromache, a copy, Class 112, the silver medal.
21. To Miss Anne Powell, of Manchester, for a drawing of Samuel and Eli, a copy, the silver Isis medal.
22. To Miss Emma Swinley, Crescent, Brighton, for a drawing of Angels receiving a good spirit, a copy, the silver palette.
23. To Mr. Thomas Lee, jun. Devonshire Street, for an original architectural design for a British Senate House, Class 113, the gold medallion, in conformity to the will of the late John Stock, Esq. of Hampstead.
24. To Mr. John Winckworth, Upper Norton-street, Fitzroy Square, for an original architectural design for a British Senate House, Class 113, the silver medallion, in conformity to the said will.
25. To Mr. H. W. Inwood, jun. Southampton Place, Euston Square, for an original view of an architectural public building, the silver Isis medal.
26. To Mr. Robt. Hudson, Duchy Place, opposite Catharine Street, for a drawing of Ajax's head, from a cast, the silver palette.
27. To Mr. John Henning, sen. Glasshouse Street, Piccadilly, for an original die engraving of Vulcan and attendants, the silver medal.
28. To Mr. John Henning, jun. Glasshouse Street, Piccadilly, for a cast in plaster, of the Good Samaritan, the silver Isis medal.
29. To Miss Janet Ross, Martlett Court, Bow Street, for an original chalk drawing of Venus, from the statue in the British Museum, Class 107, the silver medal.
30. To Miss Emma Tomkins, New Bond Street, for a chalk drawing of the Head of Apollo, a copy, the silver Isis medal.
31. To Mrs. M. E. Muchal Griffith, Holt Street House, Wrexham, for her copy and coloured drawings of the thirteenth volume of the Botanical Magazine, the silver medal.
32. To Mr. William Scouler, Clarendon Street, Somers Town, for a copy of the large antique statue of the Faunus, the silver medal.
33. To Mr. Frederick Wm. Smith, Bridge Row, Chelsea, for an alto-relievo of the Death of Pallas, the silver Isis medal.
34. To Mr. Henry W. Peck, Union Place, Shoreditch, for a plaster cast of Adam and Eve, the silver medal.
35. To Mr. Thomas Merrifield, Princes Street, Bedford Row, for an original model of Diana, the silver palette.

36. To Mr. Henry Fownes, Poplar House, Battersea, for profiles cut on Cowrie shells, the silver Isis medal.

37. To Master John Scarlet Davis, Leominster, for an engraving, the silver palette.

IN MANUFACTURES.

1. To Messrs. Tharp and Buck, for the production of Merino wool, from the breed of Spanish sheep in England, in 1815, the gold medal.

2. To Mr. G. Flower, Malden, near Hertford, for the production of Merino wool from

the breed of Spanish sheep in England, class 122, the gold medal.

3. To Mr. Thos. Schorror, Green Street, Bennet's Row, Blackfriars, for his improved machine for blocking straw hats, the silver Isis medal and five guineas.

IN MECHANICS.

1. To Admiral Sir Home Popham, Greenwich, for a telegraph, and marine vocabulary, the gold medal.

2. To the Rev. Edmund Cartwright, D.D. Hollenden House, near Tunbridge, Kent, for a traversing apparatus, the gold Isis medal.

3. To the son of the late Major C. Le Hardy, of Jersey, for the method of effecting communications between stranded vessels and the shore, the gold medal.

4. To Mr. Wm. Bremner, Lower Eaton Street, Pimlico, for an instrument for conveying ligatures around deeply situated arteries, the gold medal.

5. To Mr. Wm. Bremner, Lower Eaton Street, Pimlico, for an instrument for the extirpation of Polypi, the gold Isis medal.

6. To Lieut. M. Shuldham, R. N. Great Titchfield Street, for improved pulleys and blocks, the gold Isis Medal.

7. To Lieut. M. Shuldham, R. N. Great Titchfield Street, for improvement in working a capstan, the silver medal.

8. To Mr. Thomas Pering, Dorset Street, Salisbury Square, for his tables, called the Expedition Navigator, the gold Isis medal.

9. To Mr. James Allen, Blewitt's Buildings, for a Theodolite, the gold Isis medal.

10. To Mr. James Allen, Blewitt's Buildings, for his method of making screws for mathematical purposes, the silver Isis medal.

11. To the Rev. James Bremner, Shetland Islands, for a night telegraph, the silver medal, and fifteen guineas.

12. To the Rev. James Bremner, Shetland

Island, for a day telegraph, the silver medal, and ten guineas.

13. To Mr. William Cubitt, Ipswich, for an instrument for drawing ellipses, the silver medal.

14. To Mr. Charles West, Cursitor Street, Chancery Lane, for a parallel rule, the silver Isis medal.

15. To Mr. Edmund Turrel, Gee Street, Clarendon Square, for a drawing board and T square, the silver medal, and five guineas.

16. To Mr. Thomas Allason, Westbourne Green, Paddington, for a graphic instrument, the silver Isis medal.

17. To Mr. James Braby, Vine Street, Narrow Wall, Lambeth, for a fire escape, the silver medal.

18. To Mr. Edward Parker, No. 6, High Holborn, for a single door spring, the silver medal.

19. To Mr. Thomas Roberts, Dumfries, for a machine for ventilation, in pointing needles, ten guineas.

20. To the Chevalier Baader, Munich, for his rotary motion, the silver medal.

21. To Mr. J. Goodwin, of Carlton House, for his probang for administering medicine to horses, the silver medal.

22. To Mr. Thomas Perry, Farnham, for his aneuchronumerist, or instantaneous calculator, the silver medal.

23. To Mr. Jonathan Dickson, Holland Street, Blackfriars, for his method of propelling steam boats, the silver medal.

24. To Mr. Thos. Barber, Princes Street, Soho, for an anglograph, the silver Isis medal.

IN COLONIES AND TRADE.

1. To Thomas Hoblyn, Esq. Sloane Street, for preparing rice in the Isle of Ceylon, the gold Isis medal.

2. Lieutenant-Colonel Bouchette, Canada, for an extensive map of Canada, the gold medal.

**** The Public are requested to guard against impositions, from persons Advertising, or pretending to have Patents for Articles rewarded by the Society. It is a stipulated condition, that all Persons who receive Premiums or Bounties from the Society, shall relinquish all Pretensions to a Patent for Articles so rewarded, and shall allow them to be made by any Person whatever.*

The Public are also cautioned against Purchasing Articles sold under a pretended sanction of the Society's Name. Information may be had, by inquiry at the Society's House, whether the advertised Articles are, or are not, Deceptions upon the Public.

**** Since the last Distribution of Rewards, THREE HUNDRED New Members have been elected.*

The LIST OF PREMIUMS offered, may be had *gratis*, at the Society's House, in the Adelphi. By Order of the Society,
June, 1816. CHARLES TAYLOR, M.D. Secretary.

N.B. Where errors have arisen in the address of any Member of the Society, information is desired to be given to Mr. R. ELWIN, the Collector, at the Society's House, in the Adelphi, who receives the Subscriptions from the Members, and furnishes Receipts for the same.

Lately was published, Price 10s. 6d.

THE THIRTY-THIRD VOLUME of the SOCIETY'S TRANSACTIONS, which may be had from the Housekeeper, at the Society's House, in the Adelphi. Also complete Sets of their Transactions, or any single Volume.

Also, An ANALYTICAL INDEX of the FIRST TWENTY FIVE VOLUMES of the TRANSACTIONS of the SOCIETY, to the termination of their Session, June, 1807, price 5s. With a list of the Machines and Models in the Society's Repository, to the year 1813, inclusive.

A CATALOGUE of BOOKS in the Society's Library, may be procured as above, price One Shilling, with an Appendix thereto.
